

# American Bee Journal



44th Year.

CHICAGO, ILL., SEPT. 29, 1904.

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PRESIDENT J. U. HARRIS.

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of the  
National  
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1904



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OUR new edition of the A B C of Bee Culture is progressing finely. We expect to have the first copies ready in the coming December. Already we have orders booked for a large number. If you want a copy promptly you had better let us have your order now. Old price: \$1.00, postage 20c extra.

THE Root Correspondence School is going to be a success. The readers of The American Bee Journal will remember that we make a special offer to them of the course for \$10.00 to a limited number. Ask for our prospectus and particulars.

THE two little books: "Modern Queen-Rearing" and "How to Produce Extracted Honey" are selling fast. They are great value for little money. Fifteen cents each or both for twenty-five cents, postpaid.

IN October the discount on our bee supplies is 6 per cent. Every month you wait it will be less. It's a saving to anticipate your wants. It pays to be ready.

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# AMERICAN BEE JOURNAL

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GEORGE W. YORK, Editor.

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## Editorial Notes and Comments



### Orange Blossom Honey.

E. B. Rood expresses surprise in the American Bee-Keeper that W. S. Hart should have thought that not a barrel of pure orange-blossom honey had ever been shipped from Florida (as mentioned on page 483). Two years ago Mr. Rood extracted 30 pounds to the colony, and previously A. F. Brown extracted 50 pounds per colony that must have been almost pure, for nothing but orange blossoms were within reach to yield an appreciable amount of honey at the time.

### Division of Labor Among Bees.

E. F. Phillips, Ph.D., says in Gleanings in Bee-Culture that a young worker-bee has the entire eye well covered with unbranched hairs, making it seem practically blind; and he thinks that blindness rather than instinct accounts for the fact that it does no field-work till 16 to 20 days old, when almost every hair is removed from its eyes. Looks like a reasonable supposition, and yet when no older bees were present workers 5 or 6 days old have been known to gather stores.

### No Need to Strain Extracted Honey.

E. D. Townsend, of Michigan, says in the Bee-Keepers' Review:

No matter how much you strain honey, it needs skimming, anyhow, so the straining does not help any; besides, it requires some work to arrange a practical strainer. Then there is the washing, and care; more work all for nothing. The gates to our tanks are now placed close to the bottom. When we first began using tanks, we worked on the principle of drawing out the *center*, so the gates were placed 4 inches above the bottom; but we soon found that there was *nothing settled to the bottom*, so now we place the gates clear to the bottom and this allows us to draw that much more honey before the scum begins to come through the gate.

### Bacteria—Kinds and Importance.

When a bee-keeper hears the words *bacteria*, *microbe*, or *micro-organism*, it is in perhaps most cases with the thought only of something destructive, suggesting foul brood, typhoid fever, consumption, etc. But it is not true of these microscopic plants that they are all baneful, any more than it is true of plants of larger growth. Because one is poisoned by handling poison ivy it does not follow that he must wear gloves to pick apples or currants.

Neither are most bacteria deadly enemies because one of them produces foul brood. The fact is that out of the many hundreds of the different species of bacteria, abounding everywhere in air, water, and soil, but a comparatively few are harmful to man.

Some who read these lines will probably change to some extent their notions about bacteria after reading the following very instructive extract from an article by Prof. R. M. Bundy, in the American Bee-Keeper:

Bacteria are simply a class of low plants. They are the active principle in many of nature's processes and are as necessary to our life as the blood in our veins. They are the cause of putrefaction or decay of all animal and vegetable substances. They enrich the soil by a process of nitration in a way that cannot be done by artificial means. They are the curing agents of the farmer's hay in the mow, as well as his fodder in the silo. In the dairy they are of great importance, the souring of milk being caused by the action of bacteria, converting the sugar of the milk into lactic acid. The ripening of cream and its changes into butter, and the ripening of cheese are the direct results of bacteria growth. It is to their powers of producing chemical changes during their growth that they owe their importance in the world.

### Paste for Labeling Tin or Wood.

The American Pressman, a printers' paper, gives the following in response to an enquiry as to paste for sticking labels on tin or wood packages:

Mix 4 ounces of rye-flour with 1½ ounces of clean powder sugar in cold water, until they form a smooth cream; cut up an onion (about as large as a good-sized white plum) into small squares and drop them into a pint of boiling water, letting them remain there for one minute, after which pour in the boiling water (skimming off the onion particles) and briskly stir till the right consistency of paste is obtained. It is essential that the water be at *boiling heat* when stirring into the mixture of flour and sugar. Add 4 or 5 drops of carbolic acid to keep the paste from becoming sour. When this has been well stirred in and the mass cool, it is fit for use. Apply with a fairly fine pig's-bristle brush for evenness.

### Phacelia for Honey and Forage.

This plant which has had such a boom in Germany, although little has been said about it in California (it was introduced into Germany from California), has had a good deal said in its favor as a forage plant. Of course it is natural that a good honey-plant should be viewed optimisti-

cally by bee-keepers, and to say the least its value as a forage plant would not be underrated; so it is not strange that some of the German bee-keepers should enter a protest against praising phacelia too highly as a forage plant.

Pastor Eck, in *Praktischer Wegweiser*, speaks highly of phacelia as a honey-plant, and adds:

"But that phacelia is a good forage plant, and as such to be recommended to farmers for cultivation, we bee-keepers dare not assert, for it would be foolish to awaken in our neighbors hopes that would not be realized. Such a thing would soon bring its bitter revenge."

The testimony of a well-known Californian, W. A. Pryal, hardly agrees with this. He says in *Gleanings in Bee-Culture*:

"Some of the varieties are of rather delicate growth; others are robust. The former are relished by cattle; and where it grows in quantities it is a valuable pasturage. I have found bees working on all the varieties I have noticed, but I do not think it can be counted on for any large honey-flow."

Probably no one in this country has done more than Dr. Miller to call attention to phacelia, but a *Stray Straw in Gleanings* says:

"Phacelia doesn't come up to expectations. I have a patch about 10 feet square that I've been watching closely. The bees don't work on it as thickly as I expected, from having seen them on a few plants years ago. Possibly that was in a time of dearth. A patch of buckwheat would have more bees on it. Horses will eat it, but do not seem to hanker for it; neither does a bed of it look as pretty as I expected—don't believe it's worth boozing in this locality."

#### Del Miele e Suoi Usi.

That's the name of a pamphlet received, no doubt a very interesting one, upon honey and its uses, but unfortunately Italian is not the common medium of communication in this office. The work contains 24 neatly printed pages, written and published by Carlo Perucci, Treia (Marche), Italy.



## Miscellaneous News Items



**Michael Ambrozie**, of Austria, one of the most widely known bee-keepers of Europe, died recently. He was an extensive advertiser and an up-to-date apiarist.

**Mondeng Mfg. Co.**, have already issued their 1904-05 catalog of a full line of bee-keepers' supplies. It has 64 pages and cover. They are out for business, and expect to get their share of the patronage of bee-keepers. A copy of their catalog can be had by addressing Mondeng Mfg. Co., 147-149 Cedar Lake Road, Minneapolis, Minn.

**A Serious Experience with Bee-Stings.**—The Alkaloidal Clinic for September—a leading medical journal published in Chicago, contains the following account of the very serious effects of bee-stings on one of its Missouri readers, who evidently is also a bee-keeper:

#### BEE-STINGS.

I have had some personal experience with bee-stings recently, which I wish to report and if possible get some help.

June 17, in helping a neighbor hive a swarm of bees, several of them stung me. In a few minutes I became very sick. There was an intense tingling over the entire body, the skin became flushed, eyes suffused, the heart's action became tumultuous, and there was a sense of oppression. I soon felt nauseated, but at this time did not vomit. In a few minutes purging commenced and was quite active and imperative. This condition continued for an hour or more, then gradually subsided. But for two or three hours if I would so much as move a foot a wave of tingling would pass over my entire body.

Yesterday, July 4, in working with my bees, one stung me on the forearm. Within 3 minutes I became sick, only more intensely so than on June 17. At this time I vomited and purged within 10 minutes of being stung. All the former symptoms were present. Both times I was stung soon after the noon-day meal. I have been stung often before, with no ill-results; having many times remarked that bee-stings did not hurt me as much as mosquito bites—and this was an absolute fact. The sting yesterday caused considerable swelling which now, more than 24 hours after, still continues unabated.

The books give very little treatment, except alkalies locally. One book recommends strychnine arsenate and quinine arsenate. Also hyoscyamine for spasm. In my case there was decidedly the reverse of spasm. With me it acted as a vasomotor paralyzer. The condition simulated

that produced by an overdose of hyoscyamus, except the secretions of saliva, etc., were not diminished.

Can the editor or some brother tell me of some means I can use which will prevent this unpleasant effect every time I am stung? No doubt the best plan would be to let the other fellow look after the bees. But I really enjoy the care of bees, but of course can not continue handling them if I must suffer thus and at the same time lose so much time from my business.

There was also a peculiar roughness of the skin which on my arms had the appearance of *culis anserina*, but over my body the elevations were as large as peas, or larger.

W. W. SHAFER.

The Alkaloidal Clinic's editor replies thus to Mr. Shafer:

Our personal acquaintance with bees has been limited and not at all satisfactory. *Apis mellifera* seems to look upon us as a suspicious character, and if we go within speaking distance of the hive we get it—and though the effects are not quite as marked as you describe, they are decidedly uncomfortable—enough so, at any rate, to make us return the antipathy. Perhaps some apiculturist will give you the information you seek. The injection of a 2-percent solution of potassium permanganate is unquestionably the best remedy for the sting—after you have got it. The best prophylactic we know is—keep away from the bee. But this is really a serious matter and we call upon members of the Clinic family to come to the brother's assistance—our's also.

And we also pass on the invitation to any M.D.'s among our readers, to come to the aid of both the Clinic's editor and his bee-keeping correspondent, if possible.

**Rheumatism Cured by Bee-Stings.**—Mr. W. A. Balingher, of San Juan Co., New Mex., sends a clipping from the Denver Post about bee-stings as a cure for rheumatism. The only danger may be that much of it is mainly a newspaper story, something like the manufactured-comb-honey canards that are forever going the rounds of the press. But we give the item herewith, as it is well known that bee-stings are used in the preparation of certain medical remedies:

PHILADELPHIA, June 20.—After long experiments by bacteriologists, a firm of wholesale chemists has sent agents to Texas to obtain all the bee-stings, from which serum will be made for the cure of rheumatism.

A farmer afflicted with rheumatism was set upon by a swarm of bees and frightfully stung. His face, neck and

limbs were covered with red spots and swollen for days. When the swelling subsided, to the farmer's delight the rheumatism had disappeared.

Supplemented by similar cases, this tale came to a man who was interested in bacteriological experiments. The loss of its stinger, if carefully removed, will not destroy the bee's honey-making ability.

A special laboratory is being constructed near Phila-

delphia for the transformation of the bee-sting into a serum. The stings will be transported thither from the bee-farms in air-tight glass-tubes in specially constructed cases, so designed that the temperature surrounding the tubes may be kept the same as that of the bee's body.

In a finished state the product will be sold in small vaccine points of the same form as antitoxin and the smallpox virus.



## Contributed Special Articles



### Sugar and Honey—Consideration and Comparison.

BY ADRIAN GETAZ.

I am not going into a scientific definition of the words sugar and honey. Every reader of this paper knows what they are. From the scientist's standpoint there are several kinds of sugars. The most important of all is called sucrose, sometimes saccharose or simply cane-sugar. In this paper I shall use the word sucrose exclusively, and reserve the words sugar or cane-sugar as they are commonly understood in every-day life.

#### SUCROSE.

The ordinary granulated sugar is nothing but sucrose practically pure. The impurities that it may contain do not amount to one one-hundredth of its weight. That means that sucrose and granulated sugar are really the same. It does not make any difference whether it comes from the cane or from beets, notwithstanding what some uninformed writers have said.

From a scientific standpoint sucrose is a chemical compound of carbon and water, or at least of carbon and the elements that constitute water. Whether these elements are there in the shape of water, or independent, we cannot say positively; but there are strong indications towards the first supposition. So we may take it for granted that sucrose is composed of carbon and water chemically united.

#### CHEMICAL COMBINATIONS.

I suppose that every reader of the above understands what I mean. But for those who perhaps do not, I will give some explanations.

Carbon is what we might term pure coal, or rather charcoal. Lampblack is almost pure carbon. The diamonds when pure white are absolutely pure carbon. There is at first sight a vast difference between lampblack and diamonds. However, the diamond is carbon crystallized; that is, the particles of carbon are close together and placed in regular order.

There is a vast difference between a mixture and a chemical compound. Pour carbon (or lampblack) into water, and stir. This is a mixture. But combine them chemically and they will form some kind of sugar or similar substance.

A striking example of the difference can be seen when working plaster of Paris. Mixing the plaster with plenty of water will give a thin paste or batter almost as liquid as water. This is a mixture. After awhile, this mixture becomes almost suddenly very hard; in other words, the plaster has "set." That is, the water has combined chemically with the plaster and become solid.

#### INVERTED SUGARS.

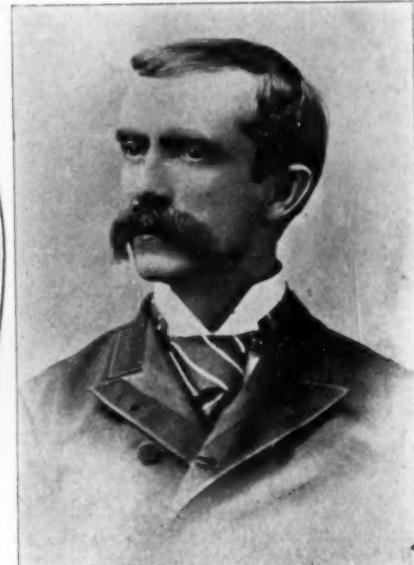
Let us put some granulated sugar (sucrose) in water. It will melt, or rather, dissolve. In fact, the word dissolve should be used exclusively for such cases, and the word melt reserved for the action of the heat turning a substance



DIRECTOR C. A. HATCH.



DIRECTOR DR. C. C. MILLER.



DIRECTOR J. M. HAMRAUCH.

into the liquid state—for instance, melting wax or melting lead.

But the sugar dissolved in water is not combined, but mixed with the water.

Let us now boil the mixture. After awhile the mixture thickens considerably, and if then left to cool, assumes the appearance and consistency of a syrup. The sucrose has become inverted. That is, it has chemically combined with an additional proportion of water and thus formed another kind of sugar, or rather a mixture of two kinds, one of which is called dextrose and the other levulose.

The change takes place very slowly if no acid is present. But an addition of any kind of acid will accelerate it considerably. The stronger the acid, and the larger quantity there is, the less time or heat is required.

#### CANE-SUGAR.

The first step in the making of cane-sugar is to cut the cane and press it, so as to extract the juice as completely as possible.

The juice is then boiled rapidly in a pan with a certain quantity of lime. The lime has two effects. The first is to separate the purely vegetable matters contained in the juice so that a part of them settles at the bottom, and another part comes up as a scum and can be skimmed off. The other effect is that the lime combines chemically with the different acids that are in the juice, and forms compounds that do not invert the sucrose. If the acids were left intact, every bit of sucrose would be inverted during the subsequent boiling.

The boiling is done as rapidly as possible in a succession of shallow pans. When the juice is sufficiently reduced it is left to cool. The sucrose with more or less impurities, crystallizes more or less perfectly, and the remaining juice, chiefly composed of inverted sugar, constitutes the molasses of the commerce.

Before the appearance of corn syrups, molasses was bringing a good price, but now its production is almost a loss. In order to reduce it on many of the modern plantations, the boiling is done in a vacuum pan.

#### REFINING.

The brown sugar is sold to the refiners. It is dissolved in plenty of water, and then goes through a series of operations during which all, or practically all, the foreign substances are eliminated. The water must now be evaporated. To boil the dissolution in an open vessel would result in the inversion of a large portion of the sucrose. To avoid this the evaporation is done in a vacuum pan. The dissolved sugar is placed in an air-tight vessel (the vacuum pan) and the air and vapor inside are pumped out as fast as the water evaporates. The effect of the pumping is to cause the water to evaporate rapidly, though none, or but very little heat is applied. The sucrose crystallizes as the water is withdrawn, and after one or two more operations is practically pure, and constitutes the granulated sugar of commerce. Light brown sugars are obtained in a similar but less complete treatment.

#### HONEY.

The nectar that the bees find in the blossoms is not honey, at least not yet. It is composed of water in which are dissolved about one-fifth of its weight of sucrose, some inverted sugars in a very small proportion, a very minute quantity of essential oils, and some very little quantities of the different substances that go to form the different plants. The essential oils are very pungent and strong in odor and taste, and it is to them that the peculiar tastes of the different honeys are due.

The bees gather the nectar and bring it home. There they put it in the cells, take it out and put it into their stomachs, put it back, and repeat the operations until the honey is sufficiently ripened. It is then left in the cells until a more complete evaporation has taken place, and then sealed.

During these operations the formic acid secreted by the stomachs of the bees has been added. The heat of the hive and the bees, and the addition of the formic acid, evaporate a large portion of the water contained in the nectar and cause another portion to combine with the sucrose, invert it and transform it into dextrose and levulose, about half and half. Usually, a small portion, more or less, of the sucrose remains unchanged.

#### GRANULATED HONEY.

If we put some sugar in water it will dissolve in it completely. We may add more, and it may dissolve also. But eventually a point will be reached where no more can be dissolved, and if more is added it will remain intact. That is, the water will dissolve only a certain per cent of its weight of sugar. If we try with warm and cold water we will find that the warmer the water the more sugar will be dissolved. If we try with common salt, soda, bluestone, copperas, alum, etc., in succession, we will find a great difference between them. Of some, large quantities can be dissolved; of others, very much less. Generally warm water will dissolve very much more of a substance than cold water. In some cases it is not so. Boiling water will dissolve but little more common salt than cold water.

Now if we dissolve as much of a substance as can be done in water, and then withdraw through boiling or otherwise a portion of the water, evidently a portion of the substance dissolved will return to its former state, since there is not enough water to dissolve all of it. I say its former state, but it is not strictly correct; usually the substance thus restored crystallizes, that is, if it is such that can crystallize.

Now let us turn to the honey. It is a mixture of dextrose, levulose and some sucrose dissolved in water, beside a very small percentage of other substances. As long as the temperature is sufficiently high the water may be able to keep all in dissolution. But in cold weather it may not be so. Of the three the sucrose crystallizes easily and in definite shape; the dextrose does not crystallize so easily, and when it does the crystallization is imperfect and more of a mushy nature. The levulose does not crystallize at all. So when the weather is cold enough so that the water cannot hold all the sucrose and dextrose in dissolution, they crystallize.

If we warm the honey they will dissolve again, but only to crystallize later, when exposed again to the cold. But if the heat is maintained long enough the recrystallization may not take place no matter how cold it may be. This is due to the fact that a sufficiently long heating has the effect of inverting whatever sucrose may be left, and also to increase the quantity of levulose at the expense of the dextrose. Strong acids have the same effect even without application of heat. And it is probable that the secret spoken of lately in regard to keeping honey liquid indefinitely consists merely in adding to it a small quantity of strong acid.

#### FEEDING.

Lately some complaints have been made that sugar syrup fed for winter has crystallized, and the quality of the sugar has been crystallized. It isn't the sugar—it is the mode of feeding. Several years ago the sugar was boiled until it became syrup, and tartaric acid was added. Under such conditions the sucrose was inverted and the resulting syrup acidified by the tartaric acid was very much like honey; in fact, it is a kind of honey. Now we merely feed sugar (that is, sucrose) dissolved in water. If the feeding is done slowly, and the weather is warm enough, the bees will do the inverting themselves. If not, they will merely store dissolved sucrose which is liable to crystallize almost at any time.

#### BEET-SUGAR.

Somebody, I think in England, said that beet-sugar is unhealthful for bees. That depends to what point the refining process is carried out. The fabrication of beet-sugar is more complicated than that of the cane-sugar. The beet's juice is very impure, comparatively, and contains substances more difficult to separate, some of them of a bitter and salty taste. In Europe the refining process is not always carried to its extreme perfection, and the sugar thus obtained is sold cheaper, and acknowledged to be beet-sugar. When thoroughly refined, it is like the cane-sugar—nothing but pure sucrose, or practically so. What the public does not always know is that the best beet-sugar is often sold for cane-sugar. And the innocent apiarist who said that cane-sugar is far better than beet-sugar had more than likely used two different qualities of beet-sugar.

#### GLUCOSE.

Glucose, cane-sugar, etc., are obtained from corn; that is, the starch contained in the grain, not from the juice of the plant, as many people imagine. The starch is extracted through some process of grinding and washing. The starches, like the sugars, are chemically composed of carbon and water, but the proportions and arrangement of the particles are

different. Like sugar, the starches can be inverted, but the transformation is more difficult. Practically it is done by submitting the starch to the action of strong sulphuric acid with enough water to keep the resulting glucose dissolved. If absolutely pure, the glucose is nothing but the same levulose that exists in the honey. Often the word glucose is applied to the dextrose as well as to the levulose or any mixture of the two.

After the transformation has taken place, the acid and the glucose are both together dissolved in the water. The question comes now to separate the sulphuric acid. This is done by adding just enough lime to combine chemically with the sulphuric acid. The product of this combination is nothing more nor less than plaster of Paris. As this cannot be dissolved in water, it assumes the solid state, and can be separated by filtration.

All that looks very nice on paper. Practically it is not so. There are practical difficulties to surmount, and the result is that the glucose or syrup found in the market contain more or less sulphuric acid, lime or plaster. Furthermore, neither the lime nor the sulphuric acid used are pure, and some of their impurities cannot be separated from the mixture. The worst of these impurities is the arsenic frequently contained in the sulphuric acid. It may be explained here that the mineral from which the sulphuric acid is extracted, usually contains some arsenic.

As a matter of fact, cases of poisoning through the use of glucoses containing arsenic have occurred several times.

Knox Co., Tenn.



## Rearing Queens—Methods Considered.

BY G. M. DOOLITTLE.

I have received the following letter to the Editor, forwarded to me for reply in the American Bee Journal:

MR. EDITOR:—I have a word in connection with Mr. Doolittle's article on page 550, which I consider of value. We find his plan is to put royal jelly into the cell-cups before he does the larvae. To save this trouble I prepare a queenless nucleus of young bees, which is fed the same as the queen-right colony. All I then do is to transfer the larvae into the cups, place them in this nucleus—which I style the royal jelly stand—leave them there about twelve hours. Then place them in the queen-right colony to be completed, thus saving and getting better work done, for the bees put in jelly fitted to the age of the larvae. By this plan I have many times in succession had every cup accepted.

I would like to ask Mr. Doolittle how he manages to keep the cells clean during comb-building season. I have more or less trouble with the bees building comb around the cells.

Is anyone mating queens from the top story with a laying queen below? If so, how is it accomplished? I am very desirous of getting information on these points.

Uinta Co., Utah, Aug. 20.

JOHN MERKLEY.

Replying to Mr. Merkley, I would say that I have gone over all the ground he has, and I can only see in it more work with *no better* queens, than with the royal-jelly plan, as given in the American Bee Journal. I know *queenless* bees can be made to do almost anything by way of rearing queens from larvae given, but any person can put royal jelly into the cell-cups, and then "float" the larvae off the transferring "needle," in less time than he can put the same number of larvae into the same cups without the jelly. At least that is the testimony of scores who have tried both ways. This being the case, all the manipulation with queenless colonies is a waste of time and a vexation of spirit. Very many times I have every prepared cell-cup accepted, having in one instance had 99 perfect queens emerge out of 100 prepared cups, the same being given at five different times, 20 at a time. I gave the average before.

All that is needed to keep the cells free from comb is to extract the honey when the bees are crowded for storing-room; or take out two or three full frames of honey and put empty frames in their places, in which they can build comb.

Two sheets of wire-cloth, half an inch apart, between the two stories, will secure the safe mating of queens from an upper story, with a laying queen in the lower. Sometimes the same arranging of perforated-zinc sheets will accomplish the same results; but at times the bees will persecute and kill the virgin queens above, where the bees from below, with the laying queen, have access to the apartments where the virgins are.

Onondaga Co., N. Y.

**Honey as a Health-Food** is the name of a 16-page leaflet (3½x6 inches) which is designed to help increase the demand and sale of honey. The first part is devoted to a consideration of "Honey as Food," written by Dr. C. C. Miller. The last part contains "Honey-Cooking Recipes" and "Remedies Using Honey." It should be widely circulated by every one who has honey for sale. It is almost certain to make good customers for honey. We know, for we have used it ourselves.

**PRICES, prepaid**—Sample copy free; 10 for 20 cts.; 25 for 40 cts.; 50 for 70 cts.; 100 for \$1.25; 250 for \$2.25; 500 for \$4.00; 1000 for \$7.50. Your business card printed free at the bottom of the front page, on all orders for 100 or more copies. Send all orders to the Bee Journal office



DIRECTOR W. F. MARKS.



DIRECTOR G. M. DOOLITTLE.



DIRECTOR P. H. ELWOOD.



## Proceedings of Conventions



### Report of the Fourth Annual Meeting of the Texas State Bee-Keepers' Association, Held at College Station, Tex., July 5 to 8, 1904.

REPORTED BY LOUIS H. SCHOLL.

(Continued from page 646.)

#### SUCCESSFUL MANAGEMENT OF OUT-APRIARIES.

The most important factor in this line of work, I believe, is to be done in cleaning of frames, bottom-boards and hives in general. See that all colonies have queens, and how breeding is progressing. In cleaning hives, etc., it has always been easier to have an extra hive-body and bottom-board. The first thing is to set the colony off to one side and put the empty hive down, then proceed to clean frames and place in the empty hive down, then proceed to clean frames and place in the empty hive-body. In this method I find we kill less bees, and work faster.

The next time around we spread brood. That is, those colonies that need it, and it has been my experience that nearly all colonies with brood in four frames need it, if there are enough bees to cluster on 6 frames. I generally give them one comb in the middle, then place pollen frames on the outside of the brood-nest, and on each visit to the yard thereafter I spread likewise. After the first spreading I always place the comb containing eggs and larvae on the outside of the sealed frames of brood, so in case of any chilling it will be better for the colony to lose the larvae than the brood, as we are working for young bees to help rear more brood, and as a rule queens lay in combs between hatching brood better than they do between combs containing larvae and eggs.

As I have described brood spreading I will describe equalizing. It is my opinion that it is the best policy to build up strong colonies by help from the weaker ones. Of course, if you have plenty of time to stimulate brood-rearing, and if your strong colonies have 8 to 10 frames of brood, then take a frame of hatching brood from the strong ones, placing the empty frame in the middle of the brood-nest of the strong colony.

We will now suppose all colonies are ready for the flow. We begin supering by giving one super with a bait-comb, and if the flow is late in arriving, as in the past two seasons, and colonies commence building cells and preparing to swarm, if increase is wanted we draw two combs of hatching-brood and a queen-cell and start a nucleus, inserting in their place frames containing full sheets of foundation, thus preventing them from building drone-comb, and nine times out of ten preventing swarming.

If no increase is wanted, then cut the queen-cells, and if there are any weak colonies in the yard, do some more interchanging of brood for empty combs.

After the flow is on, super where needed. Never super a colony that has no need of it. When a super is 2-3, or nearly

2-3, finished, place a super under it, and so on through the flow.

In some cases where you draw two frames of brood and it does not check the swarming fever, then shake them on full sheets of foundation, and if the queen is very prolific, give one comb of hatching-brood and one frame of larvae. Select larvae, if possible, too old to start queen-cells from. This plan has never failed to quell the swarming fever, and I have never had a swarm to go out.

When taking honey one man shakes the supers and another man carries and stacks them up.

After this, super colonies as if expecting another flow.

The most essential thing in successful bee-keeping, whether out-apriaries or not, is the quality of stock—good, prolific queens. Holy Lands or three-banded Italians mated to golden drones are my preference.

And movers among assistants that have the ability to do as instructed.

CARL WURTH.

F. L. Aten discussed at length his method of managing out-yards. He uses all 10-frame hives throughout. All his supers are 10-frame, deep-hive bodies. These he tiers up as high as needed and gives the queen all the room she needs. He produces mostly extracted honey, and that with plenty of room that he furnishes he has little trouble with swarming. He uses half sheets of foundation in the supers and alternates them with a honey-comb and a frame with foundation. A bee-keeper intending to run out-yards must have a good deal of experience in bee-keeping before spreading out too far.

Willie Atchley uses full-depth bodies throughout, and leaves all the supers on during the winter. During the breeding season he scatters brood through two or more bodies and thus reduces swarming.

L. Stachelhausen uses divisible brood-chamber hives and with them and the shaking of swarms he manages out-apriaries successfully. With these hives swarming can be successfully controlled whether running the out-yards for extracted or for comb or section-honey. For years his average of swarming has been only 2 per cent.

Hereupon several questions came up for discussion on the order of a question-box, and after that the several committees made their reports.

A large delegation of bee-keepers expected to attend the St. Louis meeting of the National Bee-keepers' Association, and an earnest effort will be made to secure the meeting of this Association for next year. This meeting will be held then during the time of the International Fair at San Antonio, and a good convention will be assured. It is now about time that the National should come South, and Texas wants the meeting. Every effort will be made to entertain the Northern bee-keepers when they do come, and we will be glad to show them what our country looks like.

There are many Northern bee-keepers who are interested in Texas as a honey country, and if the National meets here it will give these a chance to come and look around.

(Concluded next week.)



## Our Bee-Keeping Sisters



Conducted by EMMA M. WILSON, Marengo, Ill.

### Is Handling Queens a Cause of Balling?

I feel under such obligation to our good After-thinker for his original and attractive way of putting in a new light many of the good things he afterthinks, and especially for his doing it in such a delightfully good-natured way, that I hesitate to

talk back; but I feel impelled to stand up for the practices of the bees—at least of the bees "in this locality," whatever may be their training in Mr. Hasty's region.

On page 616 he says: "I think Miss Wilson is wrong in assuming that Sister 'Colorado's' queen was balled to protect her. That startling smell, originating with the fingers of that 'critter' that had touched their queen, was what did the

business." Now if he gives that as a possible alternative, or even as a probable alternative in that particular case, I might promptly accept the amendment. But when he talks as if bees never ball their queens for protection, and makes it appear a probable thing that every time a queen is touched by the fingers she will be balled, I respectfully—very respectfully—demur.

He says: "The nicest, cleanliest fingers are to the bee more than an onion is to a human being." Now, if Mr. Hasty detests onions as much as I, that means that every time a queen is touched by the fingers she is sure to be balled. Every queen we have is handled at least once in her lifetime by the fingers—when she is clipped—and if any harm comes from it once in a thousand times we never know it. To be sure, we don't watch to see whether the bees ball her, but if harm came to the queen from the handling, we should be able to recognize it at the next opening of the hive.

A good many times a queen is found balled by her own bees—not immediately after being handled, for at that time she is allowed to run down among the bees, and the hive is immediately closed—but she is found balled when the hive is first opened, when human touch could not have defiled her for days, or for months. In such a case I don't know for certain why she is balled, but she is certainly *not* balled because handled. If the hive is promptly closed, and the bees left in quiet, the queen will be found all right at the next visit. That looks as if the bees had been frightened at the opening of the hive, and balled her to protect her. If that isn't the correct explanation, Mr. Hasty, tell us what is; but please don't say the touch of the fingers has made the trouble when she has not been touched at all.

#### Stung by a Queen-Bee—Drone-Laying Queen— Swarming—Bee-Hive Chickens.

Old bee-keeper though I am, I have been having some new experiences this summer.

Swarming has been very much in order among the colonies. I aim to practice "anticipated swarming," but the bees got ahead of me on many occasions until I am about ready to say, "For ways that are dark and tricks that are vain, the swarming bee is peculiar."

The books to the contrary notwithstanding, I am quite sure I was stung by a *queen-bee*. The circumstances were as follows:

I had given a mature queen-cell which failed to hatch, and later out came a swarm that had at least four young

queens. As I watched them at the hive-entrance I caught one of the queens and made a prison of my left hand. Presently I picked up another and put her with the first. Soon after I felt an unmistakable sting on the inside of the prison that could have come from none but one of the royalties. Possibly they undertook to wage war in their close quarters.

I have also for the first time had a drone-laying queen, greatly to the detriment of the colony that cherished her. She was a very fine-looking queen, too. I could not see anything wrong with her.

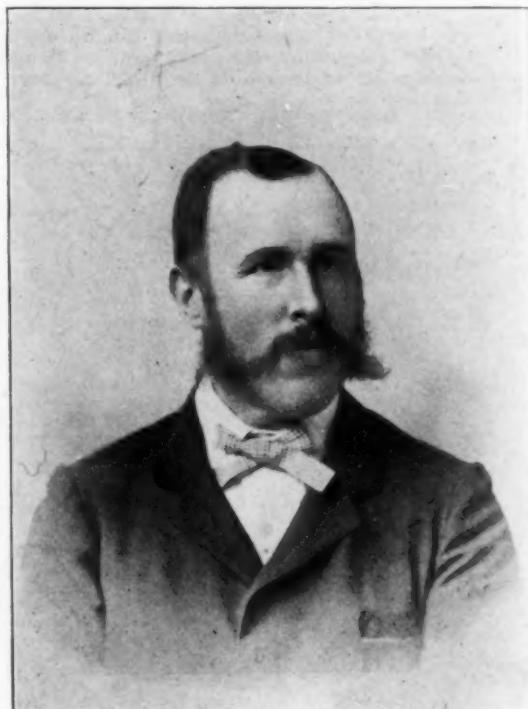
A short time since I had a letter from a friend in which she told me of her troubles—that the bees had done little in the supers but had all swarmed twice, some of them three times. It recalled vividly to my mind my own experience in the early years of my bee-keeping, when it could truly be said of my hives: "There is always room at the top," and my bill for sections was of the lightest, because the same ones did duty for more than one year. Bait sections? Yes, to be sure I had them, and the "bait" was *carried below*!

I have much better success now, and if I had had my friend with me the day after I received her letter, I would have given her an object lesson when I overhauled two of my hives. One was a 10-frame hive where everything was prosperous from a bee-standpoint. There were populous combs with plenty of honey, and what little drone-comb was in the hive was filled with eggs or brood instead of honey, showing preparation for swarming. The other was a hive in which I had put a splendid swarm less than two weeks previous. I hived them on 5 Langstroth frames with starters which they had built into beautiful snowy combs, and they had gone with a rush into the sections and were ready for a second case.

I feel grateful to Mr. Hutchinson for his article on the "Use and Abuse of Comb Foundation." His little book is full of meat.

I see the matter of bee-hive chickens is still on hand. I think if my success with them had been as great as I hoped for, I would have sent a report long ago, but I have 3 bee-hive chickens that were hatched on June 8th. I had 12 eggs that stood the first test all right, and I was hoping that most of them would hatch. I think some dashing rains and a defective hive-cover might account for the failure of the other chicks to get out of the shell.

Now, lest some doubting Thomas should set me down as being related to Munchausen I would better tell the *whole truth*! It seemed to me when I put the thermometer in the nest that the heat was insufficient, so I put hot water in an ordinary rubber warming bottle, and laid that over the eggs—not touching them, of course, but having several layers of



DIRECTOR W. A. SELSER.



DIRECTOR UDO TOEPPERWEIN.

paper and cloth between, so that the heat might sift down gently. Then the whole was covered with a chaff cushion to retain the heat. The bottle was refilled every night and morning, and the water was never cold at these times.

Custer Co., Nebr., Aug. 31. MRS. A. L. AMOS.

Seasons, as well as bees, are freaky things. You are having much swarming this year, while a large number of our colonies have never had so much as an egg in a queen-cell this season.

Last year, however, was one of the worst for swarming, contrary to the rule that when bees are storing heavily they give less thought to swarming.

Your "possibly" might well be "probably," in that queen-stinging case, one queen trying to sting the other, and stinging you by mistake. Yet there might be one exception to the rule that a queen never demeans herself to sting anything less than royalty. Certainly an exception has been known to the rule that a queen never stings a worker.



## Mr. Hasty's Afterthoughts



The "Old Reliable" seen through New and Unreliable Glasses. By E. E. HASTY, Sta. B Rural, Toledo, Ohio.

### EXTRACTING FROM COMBS WITH BROOD.

Thanks to Mr. Dadant for the courtesy with which he treats my rather strong protest against extracting from combs with brood in them. Nevertheless, in that matter (my country before my politeness), I feel bound to hit every head I see. In the article of his, on page 566, I'm obliged to see a little corner of his head—where he says a little care at the extractor will throw out the honey and leave the larvæ. In reasonable presumption the most pronounced nastiness ever to be found in a normal bee-hive is not in the brood-cells but in the thinned-down honey, or feed-fluid, in which honey is only one ingredient, placed, to be handy, right adjacent to the brood. No amount of care on the part of the operator can avoid throwing that out to mingle with the honey. Flies out before the honey does. And with the laws we already have, the pure food commissioners may get around eventually to avenge decency and justice—bring the offenders right up standing, by condemning their honey to the swill-tub.

### BEE-PAPERS OF CHRISTENDOM.

Astonishing! Plump 87 bee-papers have been caught and listed by name—besides the possibility of there being a few more loose in the woods. That Canada gets along with one and Belgium indulges in eight looks like some other things in this world—a trifle out of balance. The hind one of the eight in Belgium will hardly make its proprietor a millionaire. Still, maybe he has food and raiment from some other source; and maybe he enjoys seeing his name on the paper as editor, so awfully well (not editor written that nerveless way, but editor with big capitals all the way through) that he is really one of the happiest of mortals. Life is what the liver makes it. Should we forbid him to live life as he understands it? Not unless he first comes to understand some higher conception of life. Page 579.

### THE FOLK-SONG ABOUT THE BEE AND ROSE.

That little folk-song about the bee that took the pot of honey without laying down any money is good enough that one wonders that it should keep hid for a generation without getting into print. Red Rose was willing to furnish nectar and take pay in music—liked it even in solo. Humans all like it in distant, gentle chorus; but when it strikes up at solo near by they think of sudden business elsewhere. Page 580.

### BEE-KEEPING BY MAIL.

Bee-keeping by mail correspondence! Well, what's to hinder? Some would a great deal rather start in that way than spend a season "subbing" it in somebody's apiary—doing long hours of simple drudgery, out of which nothing can be learned but humiliation. Out a little on cost, but decided saving of comfort and independence and time. When sudden need of help pinches, a letter may be a little slow; but even with the other kind of instruction the teacher cannot be expected to stand looking on all the time; and beginner will contrive to get into, now and then, a scrape too strenuous to admit of hunting up teacher to find out what to do. Page 580.

### "FACTS ABOUT HONEY AND BEES."

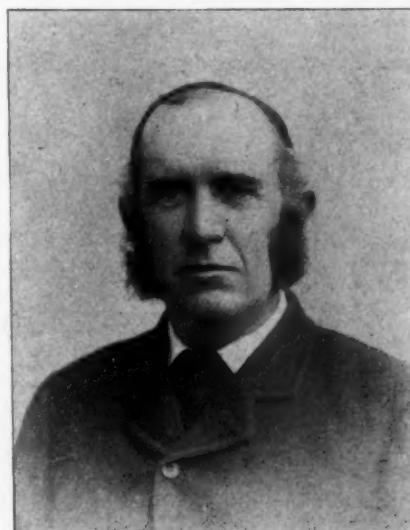
J. E. Johnson is not far from right when he puts health next to salvation, in value. But when he patters along the disgraceful old beaten path, and joins in the regulation outcry against sugar as an unhealthy thing, I take the opposite side with plenty of vim. Sugar and high-sugared viands get a bad name unjustly, because usually eaten after the person has already eaten too much. Both wholesome to a high degree if repletion is avoided. All the same, "Facts about honey and bees" are very suitable to be set before the outside public for perusal. Page 581.

### SISTERS VS. THE BRETHREN AS BEE-KEEPERS.

So the Sisters think the average man is a genius in setting things in confusion, needlessly, and leaving them so. What shall we say to this indictment, brethren? Are we guilty, or not guilty—or unable to tell till we hear the evidence? Let's reform, first, and prove our innocence afterwards. (Say, it's the married man that's guilty. Gets confirmed and hardened in this crime by leaving everything for his wife to straighten out. Bachelor gets careful and fussy, all samee girl bachelor.) Page 584.

### LATE SWARMING AND HANGING-OUT.

The fact that "Maryland's" colony swarmed abnormally late last year makes it a little more susposable that they are meditating the same thing again this year, as they hang out. Dr. Miller is right, however, in hinting that the probability of swarming decreases decidedly after bees have hung out more than the usual time. Toward autumn there are sometimes great bunches hanging from many hives, with no swarming at all. Page 587.



DIRECTOR WM. M'EVOY.



## Ask Doctor Miller



Send Questions either to the office of the American Bee Journal, or to Dr. C. C. MILLER, Marengo, Ill.

### Keeping Mice Out of Hives in the Cellar—Uniting Two Small Colonies.

1. If I take off the bottom-boards when I put bees into the cellar for wintering how can I keep the mice out?

2. How ought I to proceed to unite two small swarms, and when ought it to be done? They are two rods apart.

3. Do you think it best to contract the hive-space for the bees before putting them in the cellar for wintering? Some of the bee-men here say, "put them in as they are."

MICHIGAN.

ANSWERS.—1. I don't know that you can satisfactorily. Yet you might make a frame two inches deep, covered with wire-cloth, with coarse mesh to put under the hives.

2. Remove one of the queens three or four days before uniting. Then take the queenless bees to the other hive, alternating the combs. Or, set the queenless colony over the other with a sheet of manila paper or two or three thicknesses of newspaper between them and a hole torn in the paper big enough for a single bee to get through at a time.

3. Just as well to put them in as they are.

### Queenless and Laying-Worker Colony.

I have a little trouble on my hands at present. Colony No. 1 issued about July 15. I hived the swarm, moving the old hive several feet away and placing the new swarm at the old place. The old swarm, or Colony No. 2, remained very weak, in fact seemed to get weaker and weaker. Thinking it was queenless, I sent for a select tested Italian queen. Before introducing her I was going to make sure that the swarm was queenless, so I opened the hive again and this time found plenty of capped and uncapped brood, but no queen. On further examination I found nothing but drones—some even smaller than the ordinary bee. I searched for the queen, but in vain—even forced all the bees through a queen-excluder twice with no results. Is it possible that there is a laying

worker in the hive? What can be done in my case? I have the Italian queen in a cage on the hive, but the bees will not come up, and therefore I think they will not accept her. Can this queen be introduced in this colony? How?

WISCONSIN.

ANSWER.—That colony has been queenless eight weeks, and the bees are so old that at this time of year they're hardly worth saving. It is not only "possible that there is a laying worker in the hive," but pretty certain that a lot of laying workers are there. It is not likely that you can get the colony to accept the queen. It is not a question of saving the colony, but how to save the queen. Perhaps the best way is to introduce her into another colony in a normal condition, removing its queen. The next best thing is this: Take two or more frames of bees from a colony with a laying queen—better still if taken from two or more different colonies—put them in a hive with the queen in an introducing cage, set the hive close beside the colony of laying workers, and keep the entrance closed for three days. Then, every day or two, give to this nucleus a frame of comb and bees from the laying-worker colony till nearly all are given; then shake down in front the remaining bees and take away the hive that had the laying workers.

### Dividing After the Honey-Flow.

1. Desiring to increase my colonies, I want to inquire if it would be wise in my case to divide the old colonies this late in the year, after the honey-flow is over. My colonies are strong, and I thought of dividing them and letting the nucleus rear queens from the comb of eggs and brood given them.

CALIFORNIA.

ANSWER.—Don't. Better have one colony to go into winter strong and good, than two with neither of them fully up to the mark. Neither is it best early or late to give brood to a nucleus to rear a queen. A good, strong colony for that up to the time the queen is nearly ready to emerge.



DIRECTOR E. WHITCOMB.



DIRECTOR R. C. AIKIN.



DIRECTOR W. Z. HUTCHINSON.



## Reports and Experiences

### Good Reading-Matter a Great Help.

I am enjoying reading the back numbers of the American Bee Journal. I have 12 colonies of bees, and if I had had as much good reading several years ago as I am having now, I might have had 50 or 100 colonies. I use 10-frame chaff hives. ALLEN C. DICKS.

Grant Co., Ind., Sept. 19.

### Season Rather Unfavorable.

My crop of honey this year will be about 3000 pounds from 88 colonies, spring count. I have increased but little, as the season has been unfavorable. All of the new colonies, as well as the old from which I got increase, must be fed. I now have 96 colonies, all in good condition for winter.

SAMUEL H. HITT.

Jo Daviess Co., Ill., Sept. 15.

### Many Swarms and Unfavorable Weather.

Our honey crop is not very good this year, about one half crop of honey and 3 crops of swarms. We never had as much swarming as this year. We had swarms as late as September.

The season opened fine; it was nice and warm with plenty of pollen to

build from, but when the harvest came cold rains with cold nights spoiled the clover harvest, and the fall is pretty much the same. Our crop will probably be 50 pounds to the colony, spring count.

SAMUEL C. MAJORS.

Nemaha Co., Nebr., Sept. 16.

### Drones and Queens Feeding Themselves.

I notice on page 611 a letter from a Dupage Co. bee-keeper saying drones have been seen feeding themselves. I have observed the same thing many times. I've observed something more wonderful than that—if that can be considered wonderful—and that is one queen feeding another. Desiring to requeen some colonies, two queens that had been removed from the hives were put into the same cage; they clinched for apparently a life-and-death struggle, but soon released their grasp, and one of them commenced eating some honey that had been put on the screen cloth; then went to the other queen and went through all the motions of feeding her, and there was no more fighting between them; but another queen being put into the cage, she killed them both sooner than it takes to tell it.

W. M. M. WHITNEY.

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26-36A4t



## "Combed" and "Extracted"

### Many Species of Bees.

Some people think that there are only two or three kinds of bees—the honey-bee, the bumble-bee, and possibly one kind of smaller wild bee. So far is this from being true that no less than 1,878 different species of wild bees have been described from North America, that is, including all of the country north of Panama up to the present day.

When we come to study the habits and structure of all these bees, it is possible to understand why they are so numerous in kinds. The pollen of flowers has to be carried principally by insects; that of one flower to other flowers of the same sort, in order to bring about the fertilization and production of seed.

Of all the insect carriers the bees are the most important. They visit the flowers for nectar and pollen, to store up in nests for their young, and when so doing they carry the dust-like pollen from flower to flower, leaving a little of that previously gathered each time they alight on a blossom. Now suppose that all bees visited indiscriminately every sort of flower, it would continually happen that the pollen of one species of plant would be left on the flower of quite a different species, where it would be altogether useless. It is desirable, therefore, that each kind of bee should visit one particular kind of plant, or at any rate should prefer certain kinds. This we find to be more or less the case, and there are many bees that never visit more than one sort of flower.

The number of different kinds of flowers are very great, and consequently it is not surprising to find that there are many sorts of bees.

Described North American bees are so numerous, it is practically certain that we do not know half of those existing. An apiarist writing on this subject, says:

"Indeed, it is not impossible that the North American continent, with the West Indies, possesses as many as 5,000 species. Thus the opportunity for the student of these insects is very great. He is absolutely certain to find in almost any part of the country species wholly new to science during his first season's collecting. In Colorado I am sure that almost any spring and summer day devoted to the search would yield new kinds. In New Mexico, up to date, 508 species have been found, and of these I have been able to describe 315 as entirely new."—Rural Californian.

### Feeding Back Extracted Honey.

There is a sort of fascination about feeding back extracted honey to have it turned into comb honey. I doubt if there have been very many pounds of comb honey profitably produced "right from the stump," as Mr. Heddon used to say, by the feeding of extracted honey, but with hot weather, black bees, or those with a dash of black

blood in their make-up, unfinished sections may be completed at a profit if the work is rightly managed. Feeding back is distinctly a separate branch of apiculture, as much so as commercial queen-rearing. There are many things about it that can be learned only by experience, but much can be learned by reading the experience of others. Some

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very good hints along this line were given last fall in Gleanings by Mr. M. W. Shepard, of Florida. Among other things Mr. Shepard says:

"The question of feeding back extracted honey for the production of comb honey does not appear to settle any more than several other questions of more or less importance to the bee-keeping fraternity do. Opinions and theories differ in regard to the matter, and many of the shining lights of bee-dom say it can't be done. After an experience covering several seasons, and having had my efforts crowned with success, it may not be out of place for me to say it can be done, and done easily, and at a good profit, and especially feeding back to finish unfinished sections. We usually have several thousand such sections at the end of the main honey-flow, and in this climate it is well-nigh impossible to keep combs of any kind off the hives on account of the worms; so it is policy as well as profit that led us to try the feeding-back plan.

"We first assort the unfinished sections, get the supers ready, and then begin by filling the supers, putting the fullest ones in the corners and outside rows; but be sure to uncap all sealed cells. If you don't the bees won't, but will build new comb on top of the sealed cells, making what we call 'double-deck combs.' After you fill the supers, put not less than two on any good, strong colony whose brood-chamber is well filled with sealed brood and honey.

For feeders we use a box made of thin lumber, and which will hold a gallon or a little more. Set this box on top of the supers, fill it with thick honey, throw a handful of coarse excelsior on top of the honey; then cover the whole up bee-tight.

"You will find that the bees will store about all of the first feederful below, not making much of a show in the sections; but be sure to keep honey in the feeders day and night until the sections are nearly as full as they should be; then taper off rapidly with the feed, and the bees will seal the combs, and you will find them as smooth and perfect as if built under normal conditions. Take these supers off and replace with empty ones, and you will get them filled; but I would advise not to use the same colony for more than two lots, for on the third lot they seem to think they have done enough, and will not take the honey.

Now, this is all about finishing un-

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The Passenger Department of the Illinois Central Railroad Company have recently issued a publication known as Circular No. 12, in which is described the

**best territory in this country** for the growing of early strawberries and early vegetables. Every dealer in such products should address a postal card to the undersigned at **DUBUQUE, IOWA**, requesting a copy of "Circular No. 12."

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**HENRY M. ARND, Mgr**

**101 E. Kinzie Street, CHICAGO, ILL.**

finished sections, but the same plan holds good if you use sections filled with foundation instead of partly finished sections. I do not claim that the foregoing is a universal plan, that will work everywhere and under all conditions, whether the conditions are known or not, but I will say that it works with us on a large scale, and we are satisfied.

"Now, does it pay to feed for the purpose of filling out unfinished sections? Yes, it pays us to do so. Will it pay to feed back for the purpose of producing comb honey from full sheets of foundation in the sections? Yes, if extracted honey is not worth more than 5 cents per pound, and comb honey is not worth less than 12 cents. We wish to say, first, know what you are going to try to do, then go ahead. If you don't want a puttering job, don't try feeding back, and don't try to be a lightning operator at the job, or possibly the lightning may strike you."

The point that Mr. Shepard mentions



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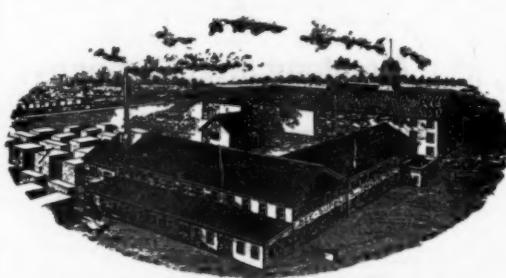
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about uncapping any sealed honey, needs, I think a little more explanation. If the combs are so arranged or placed that the spaces between them vary only slightly from a "bee-space," there is no need of uncapping the sealed cells, but if the spaces are much wider than a "bee-space," the bees, especially if crowded for room, and fed abundantly, will build comb right on top of the capped surface, giving the honey a decidedly patched and blotched appearance.—Bee-Keepers' Review.

#### CONVENTION NOTICE.

Wisconsin.—The convention of the N. E. Wisconsin Bee-Keepers' Association, to be held in the Opera House at Mishicot, Oct. 25, 1904, will be called to order at 10 a.m. Election of officers and other important business will be transacted in addition to the program recently published in this journal. DR. J. B. RICK, Sec.

Mishicot, Wis.

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## Honey and Beeswax

CHICAGO, Sept. 24.—The market is now showing more activity. Some small lots of fancy white clover have been sold at 14c per pound, with No. 1 ranging at 12@13c; very little call for other grades. Extracted, white, brings 6@7c; amber, 5@6c, according to quality, flavor and style of package. Beeswax, 28@30c.

R. A. BURNETT & CO.

KANSAS CITY, Sept. 22.—Market on comb honey is quite active at 82.75 per case for fancy white stock. Extracted rather slow at 6@7c. We look for the demand on extracted to pick up considerably with cooler weather. Beeswax in good demand at 30c per pound.

C. C. CLERMONS & CO.

BOSTON, Sept. 22.—Comb honey continues to come in slowly, while the demand is increasing. Fancy white will bring from 16@17c; No. 1, 15@16c, and No. 2, 14c. The old honey has been practically cleaned up, there being one lot of any quantity left. We look to see our present market maintained right through the season.

BLAKE, SCOTT & LEE.

NEW YORK, Sept. 8.—Arrivals of new crop comb honey are very light as yet, none to speak of, nor does there seem to be much demand as yet and prices are unsettled. We think, however, that when arrivals begin to be more plentiful, within the next 10 days or 2 weeks, there will be a demand for fancy white at 15c; No. 1, at 14c, and No. 2 at 12@13c.

Extracted honey is selling fairly well at 6@6@7c for white, and 5@6c for light amber and amber, and dark at 5c. Southern average quality in barrels, at 52@58c per gallon.

Beeswax dull and declining; choice grades selling at 28@29c. HILDRETH & SEGEKEN.

CINCINNATI, Sept. 15.—There is an improvement in the honey market, so far as extracted honey is concerned. The demand has increased considerably, but the supply is limited, owing to the fact that bee-keepers in general are mistakenly holding their crop for better prices. We quote amber extracted in barrels at 5@6c; white clover in barrels and cans at 7@8c; according to quality. The comb honey situation is badly demoralized, being ought but encouraging.

ing. Quote fancy white clover comb honey at 14@15c. Beeswax, 26@28c.

THE FRED W. MUTH CO.

ALBANY, N. Y., Sept. 19.—Honey receipts are increasing, and although demand is good, prices are easing up some, 15c being as high as we can sell any round lots. We quote: Fancy, 15@16c; A No. 1, 15c; No. 1, 14c; mixed, 12@13c; buckwheat, 13@13c. We advise shipping in handle carriers by freight only; comes safely that way. Extracted, white, 7c; mixed, 6@7c; buckwheat, 6@7c. Beeswax, 28@30c.

H. R. WRIGHT.

CINCINNATI, O., Sept. 21.—Comb honey is now coming in more freely, and prices if anything have a little moderated. The sales made and prices obtained were for No. 1 fancy water-white comb, 13@15c; No. 2, 12@14c. Extracted is sold as follows: White clover, 6@8c; amber in barrels, 5@6c; in cans, 6@6@7c. Beeswax, 27c.

C. H. W. WEBER.

PHILADELPHIA, Sept. 7.—Very little comb honey has arrived in the market as yet, but extracted honey has come in quite freely for the last two months, both from the South and West. There seems to be quite a crop of extracted honey throughout the country. Comb honey has not all been graded up yet, and we can hardly tell at this early date definitely about the price. We quote: Fancy comb, 15@16 cents; No. 1, 14@15c; amber, 10@12c; extracted, white, 7@8c; amber, 6@7c; dark, 6c. Beeswax, 27c.

We are producers of honey and do not handle on commission.

WM. A. SELSER.

SAN FRANCISCO, Sept. 7.—White comb, 1-lb. sections, 12@13c; amber, 9@11c. Extracted, white, 6@6@7c; light amber, 5@6c; amber, 4@4@7c; dark amber, 3@3@7c. Beeswax, good to choice, light, 29@30c; dark, 27@28c.

For choice to select water-white the market is unfavorable to the buying interest, stocks of this description being exceedingly light. Common grades are rather plentiful, and are not meeting with any very active demand, although as a rule they are being steadily held.

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